Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (Original) An immunogenic composition comprising two or more different antigens, wherein the antigens are selected from at least two of the following categories:
- a) at least one Neisserial adhesin;
- b) at least one Neisserial autotransporter; at least one Neisserial toxin; at least one Neisserial Fe acquisition protein; or at least one Neisserial membrane associated protein, preferably integral outer membrane protein.
- 2. (Original) The immunogenic composition of claim 1, wherein the antigens are selected from at least two of the following categories:
 - a) at least one Neisserial adhesin selected from the group consisting of FhaB, NspA, PilC, Hsf, Hap, MafA, MafB, Omp26, NMB0315, NMB0995, NMB1119 and NadA;
 - b) at least one Neisserial autotransporter selected from the group consisting of Hsf, Hap, IgA protease, AspA and NadA;
 - at least one Neisserial toxin selected from the group consisting of FrpA, FrpC, FrpA/C, VapD, NM-ADPRT, and either or both of LPS immunotype L2 and LPS immunotype L3;
 - d) at least one Neisserial Fe acquisition protein selected from the group consisting of TbpA high, TbpA low, TbpB high, TbpB low, LbpA, LbpB, P2086, HpuA, HpuB, Lipo28, Sibp, FbpA, BfrA, BfrB, Bcp, NMB0964 and NMB0293; or
 - e) at least one Neisserial membrane associated protein, preferably integral outer membrane protein selected from the group consisting of PilQ, OMP85, FhaC, NspA, TbpA(high), TbpA(low), LbpA, HpuB, TspA, TspB, TdfH, PorB, HimD, HisD, GNA1870, OstA, HlpA, MltA, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA and PldA.
- 3. (Currently Amended) The immunogenic composition of claim 1 or 2 which is a subunit composition.
- 4. (Original) The immunogenic composition of claim 3 comprising at least 2 antigens selected from the following list: FhaB, NspA, passenger domain of Hsf, passenger domain of Hap, surface exposed domain of OMP85, FrpA, FrpC, TbpB, LbpB, PldA, PilC, Lipo28 and either or both of LPS immunotype L2 and LPS immunotype L3.
- 5. (Currently Amended) The immunogenic composition of claim 1 or 2 comprising an outer membrane vesicle preparation, wherein the antigens have been upregulated (preferably recombinantly) in the outer membrane vesicle.

- 6. (Original) The immunogenic composition of claim 5 comprising at least two antigens selected from the following list which have been upregulated in the outer membrane vesicle: NspA, Hsf, Hap, OMP85, AspA, HpuA, HpuB, TspA, TspB, FhaC, TbpA (high), TbpA (low), LbpA, TbpB, LbpB, PilQ, NM-ADPRT, P2086, TdfH, PorB, MafA, MafB, HimD, HisD, GNA1870, OstA, HlpA, MltA and PldA; and optionally comprising either or both of LPS immunotype L2 and LPS immunotype L3.
- 7. (Currently Amended) The immunogenic composition of claim 1 or 2 comprising a subunit composition having one or more of the antigens, and an outer membrane vesicle preparation having at least one antigen which has been upregulated in the outer membrane vesicle.
- 8. (Original) The immunogenic composition of claim 7 comprising a subunit composition and an outer membrane vesicle preparation wherein the subunit composition comprises at least one antigen selected from the following list: FhaB, NspA, passenger domain of Hsf, passenger domain of Hap, surface exposed domain of OMP85, FrpA, FrpC, TbpB, LbpB, PilC, Lipo28 and the outer membrane vesicle preparation having at least one different antigen selected from the following list, which has been recombinantly upregulated in the outer membrane vesicle: NspA, Hsf, Hap, OMP85, AspA, HpuA, HpuB, TspA, TspB, FhaC, TbpA (high), TbpA (low), LbpA, TbpB, LbpB, PilQ, NM-ADPRT, P2086, TdfH, PorB, MafA, MafB, HimD, HisD, GNA1870, OstA, HlpA, MltA and PldA; and optionally comprising either or both of LPS immunotype L2 and LPS immunotype L3, preferably within the outer membrane vesicle preparation.
- 9. (Currently Amended) The immunogenic composition of claims 5-8 claim 5 comprising at least two different outer membrane vesicle preparations of claim 5 or 6.
- 10. (Original) The immunogenic composition of claim 9 wherein one outer membrane vesicle preparation is immunotype L2 and one outer membrane vesicle preparation is immunotype L3.
- 11. (Currently Amended) The immunogenic composition of claims 1, 2, 5, 6, 7, 8, 9 or 10 claim 1 wherein Hsf and TbpA (high) are selected.
- 12. (Currently Amended) The immunogenic composition of claims 1-2 or 5-11, claim 1 wherein Hsf and TbpA (low) are selected.
- 13. (Currently Amended) The immunogenic composition of claims 11 or 12 claim 11 wherein one or more additional antigens from a list consisting of Hap, LbpB, OMP 85 and FrpA are further selected.
- 14. (Currently Amended) The immunogenic composition of elaims 11-13 claim 11 wherein LPS immunotype L2 is further selected.

- 15. (Currently Amended) The immunogenic composition of elaims 11-14 claim 11 wherein LPS immunotype L3 is further selected.
- 16. (Currently Amended) The immunogenic composition of elaims 1–15 claim 1 wherein FhaB is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, LbpB, FrpA, FrpC, FrpA/C, NadA, OMP85, PldA, LbpA, TbpA (low), TbpA(high), TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, NspA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 17. (Currently Amended) The immunogenic composition of elaims 1–16 claim 1 wherein NspA is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, LbpB, FrpA, FrpC, FrpA/C, NadA, OMP85, PldA, LbpA, TbpA (low), TbpA(high), TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 18. (Currently Amended) The immunogenic composition of elaims 1–17 claim 1 wherein NadA is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, LbpB, FrpA, FrpC, FrpA/C, OMP85, PldA, LbpA, TbpA (low), TbpA(high), TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 19. (Currently Amended) The immunogenic composition of elaims 1-18 claim 1 wherein TbpA (low) is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, LbpB, FrpA, FrpC, FrpA/C, OMP85, PldA, LbpA, TbpA(high), TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 20. (Currently Amended) The immunogenic composition of elaims 1-19 claim 1 wherein TbpA (high) is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, LbpB, FrpA, FrpC, FrpA/C, OMP85, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB,

Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.

- 21. (Currently Amended) The immunogenic composition of elaims 1-20 claim 1 wherein LbpB is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, FrpA, FrpC, FrpA/C, OMP85, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 22. (Currently Amended) The immunogenic composition of elaims 1-21 claim 1 wherein OMP85 is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, FrpA, FrpC, FrpA/C, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, Hap, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 23. (Currently Amended) The immunogenic composition of elaims 1-22 claim 1 wherein Hap is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, Hsf, FrpA, FrpC, FrpA/C, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 24. (Currently Amended) The immunogenic composition of claims 1-23 claim 1 wherein Hsf is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, FrpA, FrpC, FrpA/C, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 25. (Currently Amended) The immunogenic composition of elaims 1-24 claim 1 wherein Frp A is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, FrpC, FrpA/C, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964,

NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.

- 26. (Currently Amended) The immunogenic composition of elaims 1-25 claim 1 wherein FrpC is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and either or both of LPS immunotype L2 and LPS immunotype L3.
- 27. (Currently Amended) The immunogenic composition of elaims 1-26 claim 1 wherein LPS immunotype L2 is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT, VapD and LPS immunotype L3.
- 28. (Currently Amended) The immunogenic composition of elaims 1-27 claim 1 wherein LPS immunotype L3 is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, PilQ, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT and VapD.
- 29. (Currently Amended) The immunogenic composition of elaims 1–28 claim 1 wherein PilQ is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, MltA, HimD, HisD, GNA1870, OstA, HlpA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT and VapD.
- 30. (Currently Amended) The immunogenic composition of elaims 1-29 claim 1 wherein HlpA is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, MltA, HimD, HisD, GNA1870, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT and VapD.
- 31. (Currently Amended) The immunogenic composition of claims 1-30 claim 1 wherein MltA is selected together with at least one further antigen selected from the

group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, GNA1870, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT and VapD.

- 32. (Currently Amended) The immunogenic composition of elaims 1-31 claim 1 wherein GNA1870 is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, NM-ADPRT and VapD.
- 33. (Currently Amended) The immunogenic composition of elaims 1-32 claim 1 wherein NM-ADPRT is selected together with at least one further antigen selected from the group consisting of: PilC, MafA, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, and VapD.
- 34. (Currently Amended) The immunogenic composition of elaims 1-33 claim 1 wherein MafA is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, and VapD.
- 35. (Currently Amended) The immunogenic composition of claims 1–34 claim 1 wherein MafB is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB0315, NMB1119, TdfH, PorB, and VapD.
- 36. (Currently Amended) The immunogenic composition of elaims 1-35 claim 1 wherein NMB0315 is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 37. (Currently Amended) The immunogenic composition of elaims 1-36 claim 1 wherein NMB1119 is selected together with at least one further antigen selected from

the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, HisD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.

- 38. (Currently Amended) The immunogenic composition of claims 1-37 claim 1 wherein HisD is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, LbpA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 39. (Currently Amended) The immunogenic composition of elaims 1–38 claim 1 wherein LbpA is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, NMB0995, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 40. (Currently Amended) The immunogenic composition of claims 1-39 claim 1 wherein NMB 0995 is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, OstA, TspA, TspB, P2086, Lipo28, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 41. (Currently Amended) The immunogenic composition of elaims 1-40 claim 1 wherein Lipo28 is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, HimD, OstA, TspA, TspB, P2086, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 42. (Currently Amended) The immunogenic composition of elaims 1-41 claim 1 wherein HimD is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, OstA, TspA, TspB, P2086, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 43. (Currently Amended) The immunogenic composition of elaims 1-42 claim 1 wherein NMB1313 is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, NMB 1953, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, OstA, TspA, TspB, P2086, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.

- 44. (Currently Amended) The immunogenic composition of elaims 1-43 claim 1 wherein NMB1953 is selected together with at least one further antigen selected from the group consisting of: PilC, MafB, Omp26, FhaC, FbpA, Bcp, NMB 1124, NMB 1162, NMB 1220, HtrA, PldA, TbpB(low), TbpB(high), HpuA, HpuB, IgA protease, AspA, OstA, TspA, TspB, P2086, Sibp, NMB0964, NMB0293, NMB1119, TdfH, PorB, and VapD.
- 45. (Currently Amended) The immunogenic composition of elaims 5-44 claim 5 wherein a host cell from which the outer membrane vesicle preparation is derived has been engineered so as to down-regulate the expression from one or more of lgtB or lgtE, preferably the former.
- 46. (Currently Amended) The immunogenic composition of elaims 5 45 claim 5 wherein a host cell from which the outer membrane vesicle preparation is derived is unable to synthesize capsular polysaccharide and has preferably been engineered so as to down-regulate the expression from one or more of siaD, ctrA, ctrB, ctrC, ctrD, synA (equivalent to synX and siaA) or synB (equivalent to siaB and synC (equivalent to siaC), preferably siaD.
- 47. (Currently Amended) The immunogenic composition of elaims 5-46 claim 5 wherein a host cell from which the outer membrane vesicle preparation is derived has been engineered so as to down-regulate the expression of one or more of OpC, OpA or PorA, preferably PorA.
- 48. (Currently Amended) The immunogenic composition of elaims 5-47 claim 5 wherein a host cell from which the outer membrane vesicle preparation is derived has been engineered so as to down-regulate the expression of FrpB.
- 49. (Currently Amended) The immunogenic composition of elaims 5-48 claim 5 wherein a host cell from which the outer membrane vesicle preparation is derived has been engineered so as to down-regulate the expression from msbB and/or htrB, preferably msbB.
- 50. (Currently Amended) The immunogenic composition of elaims 5-49 claim 5 wherein the outer membrane vesicle preparation contains LPS which is conjugated to an outer membrane protein (OMP).
- 51. (Original) The immunogenic composition of claim 50 wherein LPS is conjugated (preferably intra-bleb) to OMP in situ in the outer membrane vesicle preparation.
- 52. (Currently Amended) The immunogenic composition of elaims 1-51 claim 1 comprising an antigen derived from *Neisseria meningitidis*, preferably serogroup B.
- 53. (Currently Amended) The immunogenic compositions of claims 1-52 claim 1 comprising an antigen derived from *Neisseria gonorrhoeae*.

- 54. (Currently Amended) The immunogenic composition of elaims 1-52 claim 1 wherein all neisserial antigens are derived from N.meningitidis, preferably serogroup B.
- 55. (Currently Amended) The immunogenic composition of <u>claims 1-54 claim 1</u> further comprising one or more bacterial capsular polysaccharides or oligosaccharides.
- 56. (Original) The immunogenic composition of claim 55 wherein the capsular polysaccharides or oligosaccharides are derived from bacteria selected from the group consisting of: *Neisseria meningitidis* serogroup A, C, Y and W-135, *Haemophilus influenzae* b, *Streptococcus pneumoniae*, Group A Streptococci, Group B Streptococci, *Staphylococcus aureus* and *Staphylococcus epidermidis*.
- 57. (Currently Amended) The immunogenic composition of elaims 55-56 claim 55 wherein the capsular polysaccharide or oligosaccharide is conjugated to a protein.
- 58. (Currently Amended) The immunogenic composition of claims 1-57 claim 1 comprising an adjuvant.
- 59. (Currently Amended) The immunogenic composition of claim 58 comprising aluminium salts, preferably aluminium phosphate.
- 60. (Currently Amended) The immunogenic composition of claim 58 or 59 comprising 3D-MPL.
- 61. (Currently Amended) A vaccine comprising the immunogenic composition of claims 1-60 claim 1 and a pharmaceutically acceptable carrier.
- 62. (Original) A vaccine comprising one or more polynucleotide(s) encoding two or more different proteins whose expression is driven by a eukaryotic promoter, wherein the proteins are selected from at least two of the following categories:

at least one Neisserial adhesin selected from the group consisting of FhaB, NspA, PilC, Hsf, Hap, MafA, MafB, Omp26, NMB0315, NMB0995, NMB1119 and NadA;

at least one Neisserial autotransporter selected from the group consisting of Hsf, Hap, IgA protease, AspA and NadA;

at least one Neisserial toxin selected from the group consisting of FrpA, FrpC, FrpA/C, VapD and NM-ADPRT;

at least one Neisserial Fe acquisition protein selected from the group consisting of TbpA high, TbpA low, TbpB high, TbpB low, LbpA, LbpB, P2086, HpuA, HpuB, Lipo28, Sibp, FbpA, BfrA, BfrB, Bcp, NMB0964 and NMB0293; or at least one Neisserial membrane associated protein, preferably integral outer membrane protein selected from the group consisting of PilQ, OMP85, FhaC, NspA, TbpA(high), TbpA(low), LbpA, HpuB, TspA, TspB, TdfH, PorB, HimD, HisD, GNA1870, OstA, HlpA, MltA, NMB 1124, NMB 1162, NMB 1220, NMB 1313, NMB 1953, HtrA and PldA.

- 63. (Currently Amended) A method for treatment or prevention of Neisserial disease comprising administering a protective dose of the vaccine of claims 61-62 claim 61 to a host in need thereof.
- 64. (Original) The method of claim 63 in which *Neisseria meningitidis* infection is prevented or treated.
- 65. (Original) The method of claim 63 in which *Neisseria gonorrhoeae* infection is prevented or treated.
- 66. (Currently Amended) A use of the vaccine of claims 61-62 claim 61 in the preparation of a medicament for treatment or prevention of Neisserial infection.
- 67. (Original) The use of claim 66 in which *Neisseria meningitidis* infection is prevented or treated.
- 68. (Original) The use of claim 66 in which *Neisseria gonorrhoeae* infection is prevented or treated.
- 69. (Currently Amended) A genetically engineered Neisserial strain from which the outer membrane vesicle preparation of elaims 5-60 claim 5 is derived.
- 70. (Currently Amended) A method of making the immunogenic composition of elaim 1-60 claim 1 comprising a step of mixing together at least two antigens from Neisseria.
- 71. (Currently Amended) A method of making the immunogenic composition of elaims 5-60 claim 1 comprising a step of isolating outer membrane vesicles from a Neisserial culture.
- 72. (Original) The method of claim 71 comprising a further step of combining at least two outer membrane vesicle preparations.
- 73. (Original) The method of claim 72 wherein at least one outer membrane vesicle preparation contains LPS of immunotype L2 and at least one outer membrane vesicle preparation contains LPS of immunotype L3.
- 74. (Currently Amended) The method of elaims 71-73 claim 71 wherein the outer membrane vesicles are isolated by extracting with a concentration of DOC of 0 0.5%.
- 75. (Currently Amended) The method of claim 74 wherein the outer membrane vesicles are isolated by extracting with a concentration of DOC of 0.02%-0.4%, 0.04%-0.3%, 0.06%-0.2%, 0.08%-0.15% or preferably around or exactly 0.1%.
- 76. (Currently Amended) A method of making the vaccine of claim 61 comprising a step of combining the immunogenic composition of claims 1-60 with a pharmaceutically acceptable carrier.

- 77. (Original) A method of preparing an immune globulin for use in prevention or treatment of Neisserial infection comprising the steps of immunising a recipient with the vaccine of claim 61 and isolating immune globulin from the recipient.
- 78. (Original) An immune globulin prepared by the method of claim 77.
- 79. (Original) A pharmaceutical composition comprising the immune globulin of claim 78 and a pharmaceutically acceptable carrier.
- 80. (Original) A method for treatment or prevention of Neisserial infection comprising a step of administering to a patient an effective amount of the pharmaceutical preparation of claim 79.
- 81. (Original) A use of the pharmaceutical preparation of claim 79 in the manufacture of a medicament for the treatment or prevention of Neisserial disease.
- 82. (Currently Amended) The immunogenic composition of elaim 5-60 claim 5, comprising a meningococcal bleb of immunotype L2 and a meningococcal bleb of immunotype L3.
- 83. (Original) The immunogenic composition of claim 82 wherein TbpA(high) is upregulated in one of the blebs.
- 84. (Currently Amended) The immunogenic composition of claim 82 or 83 wherein TbpA(low) is upregulated in one of the blebs.
- 85. (Currently Amended) The immunogenic composition of elaims 82-84 claim 82 wherein Hsf is upregulated in one of the blebs.
- 86. (Currently Amended) The immunogenic composition of elaims 82-85 claim 82 wherein OMP85 is upregulated in one of the blebs.
- 87. (Currently Amended) The immunogenic composition of elaims 82-86 claim 82 wherein the blebs are isolated from meningococcal strains incapable of making capsular polysaccharide, preferably siaD.
- 88. (Currently Amended) The immunogenic composition of elaims 82-87 claim 82 wherein the L2 and/or L3 LPS oligosaccharide structures are truncated consistent with the blebs having been isolated from meningococcal strains that are lgtB.
- 89. (Currently Amended) The immiunogenic composition of elaims 82-88 claim 82 wherein the blebs are isolated from meningococcal strains that have downregulated expression of msbB.
- 90. (Currently Amended) The immunogenic composition of elaims 82-89 claim 82 wherein the L2 and/or L3 LPS oligosaccharide moieties are intra-bleb conjugated to outer-membrane proteins integral to the bleb.

91. (Currently Amended) The immunogenic composition of elaims 82-90 claim 82 wherein the blebs are derived from meningococcal strains which have downregulated expression of one or more of: FrpB, PorA, Opa or Opc.